Amendments to the Claims

This listing of claims reflects all claim amendments and replaces all prior versions, and listings, of claims in the application (material to be inserted is in underline, and material to be deleted is in ~~strikeout~~ or, if the deletion is of five or fewer consecutive characters or would be difficult to see, in double brackets [[ ]]):

Claim 1 (currently amended): A process for manufacturing a composite material comprising:

selecting a resin which is solid or semi-solid at ambient temperatures;

heating the resin to a temperature where the resin is in a liquid or viscous liquid state;

obtaining ~~first and second~~ one or more filament bands, said one or more filament bands being comprised of a plurality of fibers and being at least about 0.5 inches wide;

impregnating said filament bands in said resin while said resin is in a liquid or viscous liquid state;

winding ~~the first~~ at least one filament band onto a rotating mandrel through successive winding passes sufficient to form a composite material; wherein each successive winding pass winds the at least one filament band alternatingly in first and second opposing directions; and wherein the at least one filament band is wound onto the rotating mandrel at least at two distinct, user-defined winding angles within at least one of the winding passes. ~~at a first angle;~~

~~winding the second filament band in a second direction, wherein the second angle has an intersecting orientation with the first angle, such that the first filament band and the second filament band form a composite material.~~

Claim 2 (currently amended): The process, as recited in claim 1, wherein the resin is selected to provide the at least one filament band with tack during winding ~~intersecting orientation of the first angle and the second angle is substantially perpendicular~~.

Claim 3 (canceled)

Claim 4 (currently amended): The process, as recited in claim 1, wherein the angle of the at least one filament band relative to the mandrel ~~orientation of the filament bands~~ is controlled by a filament application section of a filament winding machine.

Claim 5 (original): The process, as recited in claim 4, wherein the application section impregnates the filament bands with the resin.

Claim 6 (currently amended): The process, as recited in claim 1, wherein the successive winding passes of the at least one ~~first~~ filament band ~~and the second filament band have~~ creates a plurality of overlapping locations.

Claim 7 (original): The process, as recited in claim 6, wherein an effective amount of resin is present in the overlapping locations.

Claim 8 (currently amended): The process, as recited in claim 2 ~~claim 1~~, wherein the tack of the at least one filament band is sufficiently adhesive to maintain the at least one filament band on the mandrel at the distinct user-defined winding angles ~~first filament band and the second filament band are impregnated with a substantially similar quantity of resin~~.

Claim 9 (currently amended): A process for manufacturing a composite component comprising:

determining load requirement for the component;

identifying the number of layers and orientation of filament bands to meet load requirements for the component;

creating a manufacturing control plan;

selecting a resin which is solid or semi-solid at ambient temperatures;

heating the resin to a temperature where the resin is in a liquid or viscous liquid state;

obtaining ~~first and second~~ one or more filament bands, said one or more filament bands being comprised of a plurality of fibers and being at least about 0.5 inches wide;

impregnating said filament bands with said resin while said resin is in a liquid or viscous liquid state;

winding ~~the first~~ at least one filament band onto a rotating mandrel through successive winding passes; wherein the at least one filament band is wound onto the rotating mandrel at least at two distinct winding angles within at least one of the winding passes; and wherein the at least one filament band is ~~at a first angle; winding the second filament band in a second direction, wherein the second angle has an intersecting orientation with the first angle, the plurality of filament bands being~~ wound according to the manufacturing control plan, such that the number of ~~layers~~ successive winding passes and the angles of the filament bands relative to the mandrel in each winding pass ~~and orientations of filament bands~~ create a pre-form for the component.

Claim 10 (currently amended): The process, as recited in claim 9, wherein the at least one filament band is ~~bands are~~ wound into a plurality of layers having at least three different filament band orientations.

Claim 11 (original): The process, as recited in claim 9, further comprising cutting the pre-form from the composite material.

Claim 12 (original): The process, as recited in claim 11, further comprising curing the pre-form on a shape defining form.

Claim 13 (original): The process, as recited in claim 9, wherein a plurality of performs are simultaneously wound.

Claim 14 (original): The process, as recited in claim 9, wherein the pre-form is wound in a sheet of composite material.

Claim 15 (new): A process for manufacturing a composite material comprising:

providing a rotating mandrel having a length;

providing a filament application section operatively associated with the mandrel;

associating one or more filament bands with the filament application section for winding on the rotating mandrel;

impregnating the one or more filament bands with a resin that is solid or semi-solid at ambient temperatures;

rotating the mandrel at a user-selectable rate to draw at least one impregnated filament band from the filament application section; and

moving at least one of the mandrel and the filament application section relative to the other to cause the filament winding section to move along the length of the mandrel thereby winding at least one filament band onto the mandrel; wherein the relative movement of the mandrel and the filament application section proceeds in successive winding passes to form a composite material; wherein each successive winding pass consists of relative movement between the mandrel and the filament application section in alternating first and second opposing directions; and wherein the user-selectable rate of the rotating mandrel and the relative movement between the mandrel and the filament application section along the length of the mandrel are coordinated to wind the at least one filament band onto the mandrel at least at two distinct, user-defined winding angles within at least one of the winding passes.

Claim 16 (new): The process, as recited in claim 15, wherein the filament application section comprises filament winding head, and wherein the filament winding head, the rotation of the mandrel, and the relative movement of the mandrel and the filament winding section along the length of the mandrel cooperatively control the angle at which the at least one filament band is applied to the mandrel.